



# RANDOM ORBITAL SANDER INSTRUCTION MANUAL

## 127 mm (5 in) and 150 mm (6 in) 12,000 RPM

### Important Safety Information

Please read, understand and follow all safety information contained in these instructions prior to the use of this tool. Retain these instructions for future reference.

### Intended Use

This pneumatic tool is intended for use in industrial locations, and used only by skilled, trained professionals in accordance with the instructions in this manual. This pneumatic tool is designed to be used with a disc pad and appropriate abrasive for sanding metals, wood, stone, plastics and other materials. It should only be used for such sanding applications and within marked capacity and ratings. Only accessories specifically recommended by 3M should be used with this tool. Use in any other manner or with other accessories could lead to unsafe operating conditions.

Do not operate tool in water or in an excessively wet application.

Do not use disc pads that have a Max RPM or Max OPM less than the tool Max RPM or Max OPM rating. Never use disc pads that have a weight and/or size different than what the tool was specifically designed for.

### Explanation of Signal Word Consequences

	<b>WARNING:</b>	Indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury and/or property damage.
	<b>CAUTION:</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage.

Read the Material Safety Data Sheets (MSDS) before using any materials.



Contact the suppliers of the workpiece materials and abrasive materials for copies of the MSDS if one is not readily available.

### **WARNING**

Exposure to **DUST** generated from workpiece and/or abrasive materials can result in lung damage and/or other physical injury.  
Use dust capture or local exhaust as stated in the MSDS. Wear government-approved respiratory protection and eye and skin protection.  
**Failure to follow this warning can result in serious lung damage and/or physical injury.**



### **WARNING**

**To reduce the risks associated with impact from abrasive product, disc pad, or tool breakup, sharp edges, hazardous pressure, rupture, vibration and noise:**

- Read, understand and follow the safety information contained in these instructions prior to the use of this tool. Retain these instructions for future reference.
- Only personnel who are properly trained should be allowed to service this tool.
- Practice safety requirements. Work alert, have proper attire, and do not operate tools under the influence of alcohol or drugs.
- Operators and other personnel must always wear protection for eyes, ears, and respiratory protection when in the work area or while operating this product. Follow your employer's safety policy for PPE's and/or ANSI Z87.1 or local/national standards for eyewear and other personal protective equipment requirements.
- Wear protective apparel, taking into consideration the type of work being done.
- Never exceed marked maximum input pressure (90psi / .62Mpa / 6.2Bars).
- Proper eye protection must be worn at all times.
- Tool shall not be operated in the presence of bystanders.
- If you notice any abnormal noise or vibration when operating the tool, immediately discontinue its use and inspect for worn or damaged components. Correct or replace the suspect component. If abnormal noise or vibration still exists, return the tool to 3M for repair or replacement. Refer to warranty instructions.
- Never operate this tool without all safety features in place and in proper working order.
- Never over-ride or disable the safety features of the start-stop control such that it is in the on position.
- Make sure the tool is disconnected from its air source before servicing, inspecting, maintaining, cleaning, and before changing abrasive product.
- Prior to use, inspect abrasive product and accessories for possible damage. If damaged, replace with new abrasive product and accessories available from 3M.
- Only use accessories supplied or recommended by 3M.
- Never allow this tool to be used by children or other untrained people.
- Do not leave an unattended tool connected to air source.
- Immediately discontinue use of tool if its noise reduction muffler system has been damaged or is otherwise not functioning properly. Have tool repaired before placing back into use.

## ⚠ WARNING

**To reduce the risks associated with vibration:**

- If any physical hand/wrist discomfort is experienced, work should be stopped promptly to seek medical attention. Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

**To reduce the risks associated with loud noise:**

- Always wear hearing protection while operating this tool. Follow your employer's safety policy or local/national standards for personal protective equipment requirements.

**To reduce the risks associated with fire or explosion:**

- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. The abrasives are able to create sparks when working material, resulting in the ignition of the flammable dust or fumes.
- Refer to MSDS of material being worked as to potential for creating fire or explosion hazard.

**To reduce the risks associated with hazardous dust ingestion or eye/skin exposure:**

- Use appropriate respiratory and skin protection, or local exhaust as stated in the MSDS of the material being worked on.

**To reduce the risks associated with hazardous voltage:**

- Do not allow this tool to come into contact with electrical power sources as the tool is not insulated against electrical shock.

## ⚠ CAUTION

**To reduce the risks associated with skin abrasion, burns, cuts, or entrapment:**

- Keep hands, hair, and clothing away from the rotating part of the tool.
- Wear suitable protective gloves while operating tool.
- Do not touch the rotating parts during operation for any reason.
- Do not force tool or use excessive force when using tool.

**To reduce the risks associated with whipping or hazardous pressure-rupture:**

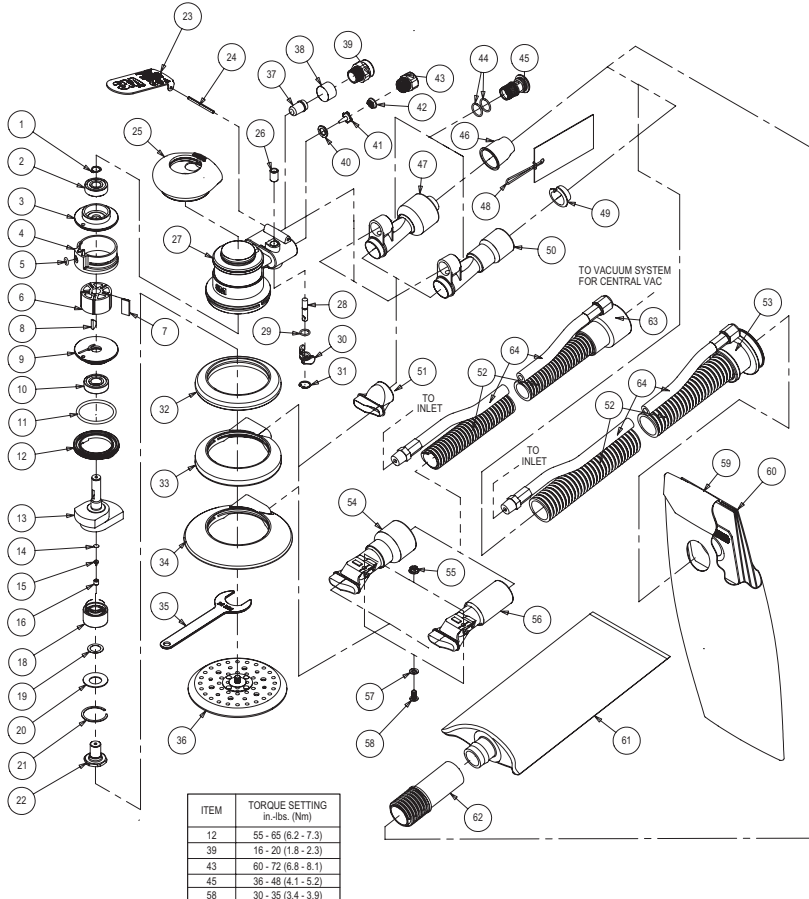
- Ensure supply hose is oil resistant and is properly rated for required working pressure.
- Do not use tools with loose or damaged air hoses or fittings.

- Be aware that incorrectly installed hoses and fittings might unexpectedly come loose at any time and create a whipping/impact hazard.

**To reduce the risks associated with fly off of abrasive product or parts:**

- Use care in attaching abrasive product and disc pad; following the instructions to ensure that they are securely attached to the tool before use.
- Never free spin the tool or otherwise allow it to be started unintentionally.
- Never point this product in the direction of yourself or another person, or start tool unintentionally.
- Never over-tighten accessory fasteners.

## Parts Page



## Parts List

Item	3M Part Number	UPC	Description	Qty.
1	A0040	28113	EXTERNAL RETAINING RING	1
2	A0021	28107	BEARING - 2 SHIELDS	1
3	B0017	28173	REAR ENDPLATE	1
4	A0005	28094	CYLINDER ASSEMBLY	1
5	A0042	28115	5 mm x 2 mm O-RING	1
6	B0005	28170	ROTOR	1
7	A0010	28099	VANE	5
8	A0041	28114	WOODRUFF KEY	1
9	B0016	28172	FRONT ENDPLATE	1
10	A0019	28106	BEARING - 2 SHIELDS	1
11	A0045	28118	39.4 mm x 3.1mm O-RING	1
12	A0001	28093	LOCK RING	1
13	B0279	28180	5 in x 3/32 in ORBIT SHAFT BALANCER	1
	B0277	28178	5 in x 3/16 in ORBIT SHAFT BALANCER	1
	B0348	30325	5 in x 5/16 in (8.0 mm) ORBIT ROS BALANCER	1
	B0278	28179	6 in x 3/16 in ORBIT SHAFT BALANCER	1
	B0280	28181	6 in x 3/32 in ORBIT SHAFT BALANCER	1
	B0334	28184	6 in x 5/16 in (8 mm) ORBIT SHAFT BALANCER	1
14	A0122	28132	FILTER	1
15	A0121	28131	DUCKBILL CHECK VALVE	1
16	A0120	28130	VALVE RETAINER	1
17	N/A	N/A	N/A	1
18	A0838	28148	DOUBLE ROW ANGULAR CONTACT BEARING - SEAL	1
19	A0016	28103	SPACER 12.1 mm ID x 18.0 mm OD x 0.2 mm THK	1
20	A0017	28104	BELLEVILLE WASHER	1
21	A0018	28105	RETAINING RING	1
22	B0018	28174	SPINDLE	1
23	A1351	28163	LEVER FOR 2.5 mm (3/32 in) ORBIT	1
	A1352	28164	LEVER FOR 5.0 mm (3/16 in) ORBIT	1
	A1447	28169	LEVER FOR 8 mm (5/16 in) ORBIT	1
24	A0031	28109	LEVER SPRING PIN	1
25	20342	20342	GRIP 2.5 in	OPT
	20343	20343	GRIP 2.75 in	1
	20344	20344	GRIP 3 in	OPT
26	A0015	28102	VALVE SLEEVE	1
27	A1330	28150	HOUSING	1
28	A0008	28097	VALVE STEM ASSEMBLY	1
29	A0043	28116	9.0 mm x 1.5 mm O-RING	1
30	B0014	28171	SPEED CONTROL	1
31	A0039	28112	INTERNAL RETAINING RING	1
32	A1346	28158	5/8 in NON-VACUUM SHROUD	1
33	A1347	28159	5/8 in SHROUD	1
	A1348	28160	Ø 6 in CLEAN SANDING ROS DISC PAD SHROUD	1
35	A0022	28108	24 mm PAD WRENCH	1
36	N/A	N/A	DISC PAD SUPPLIED WITH EACH TOOL (TYPE DETERMINED BY MODEL)	1
37	A0062	28121	INTERNAL MUFFLER	1
38	A0068	28122	MUFFLER INSERT	1
39	A0166	28138	MUFFLER HOUSING	1
40	A0009	28098	VALVE SEAT	1
41	A0007	28096	VALVE	1
42	A0014	28101	VALVE SPRING	1
43	A0013	28100	INLET BUSHING ASSEMBLY	1
44	A0044	28117	14 mm x 1.5 mm O-RING	2
45	A0006	28095	SGV RETAINER	1
46	A0778	28146	1 in/28 mm HOSE SEAL	1
47	A1338	28156	ASSEMBLY FOR 1 in/28 mm HOSE SGV SWIVEL EXHAUST FITTING	1
48	N/A	N/A	TAG W/ INSTRUCTION FOR 1 in/28 mm HOSE SEAL	1
49	N/A	N/A	3/4 in/19 mm HOSE SEAL	N/A
50	N/A	N/A	ASSEMBLY FOR 3/4 in/19 mm HOSE SGV SWIVEL EXHAUST FITTING	N/A
51	A1333	28153	SGV SKIRT/SHROUD ADAPTER	1
52	28301	28301	VACUUM HOSE, 1 in ID x 6 ft	OPT
53	28302	28302	VACUUM HOSE ADAPTOR, 1 in Internal Hose Thread	OPT
54	A1343	28157	ASSEMBLY FOR ROS CV 1 in/28 mm SWIVEL EXHAUST	1
55	A0048	28120	FLANGED NUT	1
56	A1345	28157	ASSEMBLY FOR ROS CV 3/4 in. SWIVEL EXHAUST	OPT
57	A0047	28119	WASHER	1
58	A0769	28145	SCREW	1
59	A1434	28303	VACUUM BAG COVER (CLOTH)	OPT
60	20338	20338	VACUUM BAG INSERT (PAPER)	OPT
61	20452	20452	CLEAN SANDING FILTER BAG	1
62	20453	20453	FILTER BAG ADAPTOR	1
63	20341	20341	VACUUM HOSE FITTING ADAPTOR, 1 in Internal Hose Thread x 1-1/2 in OD Hose Adaptor	OPT
64	20209	20209	RANDOM ORBITAL SANDER AIR LINE EXTENSION, 3/8 in x 4 ft	OPT

# Product Configuration/Specifications: 12,000 RPM Random Orbital Sander

Note: All Vacuum machines use Ø 28 mm (1 in.) Vacuum Hose Fittings.																
Orbit	Pad Face	Vacuum Type	Pad Type	Pad Size mm (in)	Model Number	Pad Part Number	Product Net Wt (kg) (lb)	Height mm (in)	Length mm (in)	*Noise Level dBA Pressure (Power)	**Vibration Level m/s <sup>2</sup> (ft/s <sup>2</sup> )	**Uncertainty K m/s <sup>2</sup>				
2.5 mm (3/32 in)	Stikit™	Non Vacuum	Low Profile	127 (5)	20320	20351	0.72 (1.59)	82.9 (3.26)	148.4 (5.84)	77 (83)	3.1 (10.2)	1.55				
				150 (6)	20328	20354	0.76 (1.68)	82.9 (3.26)	161.1 (6.34)	83 (89)	3.3 (10.8)	1.65				
	Hookit™	Central Vacuum	Clean Sanding	127 (5)	20321	20353	0.78 (1.72)	84.5 (3.33)	209.5 (8.25)	77 (83)	3.1 (10.2)	1.55				
				150 (6)	20329	20356	0.83 (1.83)	84.5 (3.33)	222.2 (8.75)	83 (89)	3.3 (10.8)	1.65				
				150 (6)	20463‡	20465	0.83 (1.83)	84.5 (3.33)	222.2 (8.75)	83 (89)	3.3 (10.8)	1.65				
		Self-Gen Vacuum	Clean Sanding	127 (5)	20322	20353	0.80 (1.76)	84.5 (3.33)	217.9 (8.58)	84 (95)	3.1 (10.2)	1.55				
				150 (6)	20330	20356	0.86 (1.90)	84.5 (3.33)	230.6 (9.08)	83 (92)	3.1 (10.2)	1.55				
				150 (6)	20464‡	20465	0.86 (1.90)	84.5 (3.33)	230.6 (9.08)	83 (92)	3.1 (10.2)	1.55				
5 mm (3/16 in)	Stikit™	Non Vacuum	Low Profile	127 (5)	20317	20351	0.75 (1.65)	82.9 (3.26)	149.6 (5.89)	80 (88)	3.2 (10.5)	1.60				
				150 (6)	20325	20354	0.79 (1.74)	82.9 (3.26)	162.3 (6.39)	79 (83)	3.3 (10.8)	1.65				
				150 (6)	20457‡	20352	0.75 (1.65)	82.9 (3.26)	149.6 (5.89)	80 (88)	3.2 (10.5)	1.60				
	Hookit™	Central Vacuum	Clean Sanding	127 (5)	20460‡	20355	0.79 (1.74)	82.9 (3.26)	162.3 (6.39)	79 (83)	3.3 (10.8)	1.65				
				127 (5)	20318	20353	0.81 (1.79)	84.5 (3.33)	210.8 (8.30)	81 (88)	3.2 (10.5)	1.60				
				150 (6)	20326	20356	0.86 (1.90)	84.5 (3.33)	223.5 (8.80)	77 (85)	3.3 (10.8)	1.65				
	Stikit™	Self-Gen Vacuum	Low Profile	127 (5)	20455‡	20442	0.81 (1.79)	84.5 (3.33)	210.8 (8.30)	81 (88)	3.2 (10.5)	1.60				
				150 (6)	20458‡	20454	0.86 (1.90)	84.5 (3.33)	223.5 (8.80)	77 (85)	3.3 (10.8)	1.65				
				127 (5)	20456‡	20442	0.83 (1.83)	84.5 (3.33)	219.2 (8.63)	85 (93)	3.2 (10.5)	1.60				
	Hookit™	Self-Gen Vacuum	Clean Sanding	150 (6)	20459‡	20454	0.89 (1.96)	84.5 (3.33)	231.9 (9.1)	83 (92)	3.3 (10.8)	1.65				
				127 (5)	20319	20353	0.83 (1.83)	84.5 (3.33)	219.2 (8.62)	85 (93)	3.2 (10.5)	1.60				
				150 (6)	20327	20356	0.89 (1.96)	84.5 (3.33)	231.9 (9.1)	83 (92)	3.3 (10.8)	1.65				
		Stikit™	Non Vacuum	Low Profile	150 (6)	20462‡	20465	0.89 (1.96)	84.5 (3.33)	231.9 (9.1)	83 (92)	3.3 (10.8)	1.65			
					Hookit™	Central Vacuum	Clean Sanding	127 (5)	20253	20351	0.76 (1.68)	82.9 (3.26)	150.37 (5.92)	74 (83)	<2.5 (<8.2)	N/A
								20254/ 163378	20353	0.82 (1.81)	82.9 (3.26)	212.08 (8.35)	77 (85)	<2.5 (<8.2)	N/A	
	Hookit™	Self-Gen Vacuum	Clean Sanding	20255/ 163379	0.84 (1.85)	82.9 (3.26)	220.66 (8.68)	91 (99)		<2.5 (<8.2)	N/A					
Hookit™				Central Vacuum	Clean Sanding	20324	20354	0.79 (1.74)	82.9 (3.26)	163.42 (6.45)	77 (85)	3.3 (10.8)	1.65			
	20213	20356	0.87 (1.92)			82.9 (3.26)	224.8 (8.85)	75 (85)	3.5 (11.4)	1.75						
	63373‡	20465	0.87 (1.92)			82.9 (3.26)	224.8 (8.85)	75 (85)	3.5 (11.4)	1.75						
	20208	20356	0.90 (1.98)			82.9 (3.26)	233.4 (9.18)	82 (92)	3.4 (11.1)	1.70						
	63372‡	20465	0.90 (1.98)			82.9 (3.26)	233.4 (9.18)	82 (92)	3.4 (11.1)	1.70						

† Available only in Europe.

‡ Available only in APAC.

\* Declared noise levels; measurements carried out in accordance with standard EN ISO 15744:2008.

\*\* Declared vibration levels in accordance with EN12096; measurements carried out in accordance with standard EN ISO 8662-8:1997.

**IMPORTANT NOTE:** The noise and vibration values stated in the table are from laboratory testing in conformity with stated codes and standards and are not sufficient risk evaluation for all exposure scenarios. The actual exposure values and amount of risk or harm experienced to an individual is unique to each situation and depends upon the surrounding environment, the way in which the individual works, the particular material being worked, work station design, as well as upon the exposure time and the physical condition of the user. 3M™ cannot be held responsible for the consequences of using declared values instead of actual exposure values for any individual risk assessment.

## Operating / Maintenance Instructions

### PRIOR TO THE OPERATION

The tool is intended to be operated as a hand held tool. It is always recommended that while using the tool, operators stand on a solid floor, in a secure position with a firm grip and footing. Be aware that the sander can develop a torque reaction. See the section "SAFETY PRECAUTIONS".

Use a clean lubricated air supply that will give a measured air pressure at the tool of 6.2 bar (90 psig) when the tool is running with the lever fully depressed. It is recommended to use an approved 10 mm (3/8 in) x 8 m (25 ft) maximum length airline. Connect the tool to the air supply as shown in Figure 1. Do not connect the tool to the airline system without an easily accessible air shut off valve. It is strongly recommended that an air filter, regulator and lubricator (FRL) be used as shown in Figure 1as this will supply clean, lubricated air at the correct pressure to the tool. In any case appropriate air pressure regulators shall be used at all times while operating this tool where the supply pressure exceeds the marked maximum of the tool. Details of such equipment can be obtained for your tool distributor. If such equipment is not used, the tool should be manually lubricated. To manually lubricate the tool, disconnect the airline and put 2 to 3 drops of suitable pneumatic motor lubricating oil such as 3M™ Air Tool Lubricant PN 20451, Fuji Kosan FK-20, Mobil ALMO 525 into the hose end (inlet) of the tool. Reconnect tool to the air supply and run tool slowly for a few seconds to allow air to circulate the oil. If the tool is used frequently, lubricate it on a daily basis or lubricate it if the tool starts to slow or lose power. It is recommended that the air pressure at the tool be 6.2 bar (90 psig) while the tool is running so the maximum RPM is not exceeded. The tool can be run at lower pressures but should never be run higher than 6.2 bar (90 psig). If run at lower pressure the performance of the tool is reduced.

<b>Recommended Airline Size - Minimum</b>	<b>Recommended Maximum Hose Length</b>	<b>Air Pressure</b>
10 mm                      3/8 in	8 meters                      25 feet	Maximum Working Pressure 6.2 bar 90 psig Recommended Minimum                      NA                      NA

## Safety Precautions

1. Read all instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules.
2. The tool RPM should be checked on a regular basis to ensure proper operating speed.
3. Make sure the tool is disconnected from the air supply. Select a suitable abrasive and secure it to the disc pad. Be careful to center the abrasive on the disc pad.
4. Always wear required safety equipment when using this tool.
5. When sanding/buffing always start the tool on the workpiece. This will prevent gouging due to excess speed of the buff pad. Stop air flow to the tool as it is removed from the workpiece.
6. Always remove the air supply to the sander before fitting, adjusting or removing the abrasive or disc pad.
7. Always adopt a firm footing and grip and be aware of torque reaction developed by the sander.
8. Use only 3M approved spare parts.
9. Always ensure the material being sanded is firmly fixed to avoid movement.
10. Check hose and fittings regularly for wear. Do not carry the tool by its hose; always be careful to prevent the tool from being started when carrying the tool with the air supply connected.
11. Dust can be highly combustible.
12. If tool is serviced or rebuilt check to ensure that the maximum tool RPM is not exceeded and that there is no excessive tool vibration.
13. Do not exceed maximum recommended air pressure. Use safety equipment as recommended.
14. Prior to installing any sanding or polishing accessory, always check that its marked maximum operating speed is equal or higher than the rated speed of this tool.
15. The tool is not electrically insulated. Do not use where there is a possibility of contact with live electricity, gas pipes, and/or water pipes.
16. This tool is not protected against hazards inherent in grinding and cutting operations and no such accessories should ever be attached.
17. Take care to avoid entanglement with the moving parts of the tool with clothing, ties, hair, cleaning rags or loose hanging objects. If entangled, stop air supply immediately to avoid contact with moving tool parts.
18. Keep hands clear of the spinning pad during use.
19. If the tool appears to malfunction, remove from use immediately and arrange for service and repair.
20. Immediately release the start handle in the event of any disruption of pressure; do not attempt to re-start until the disruption has been corrected.
21. When tool is not in use, store in a clean dry environment free of debris.
22. Recycle or dispose of tool according to Local, State, and Federal Regulations.

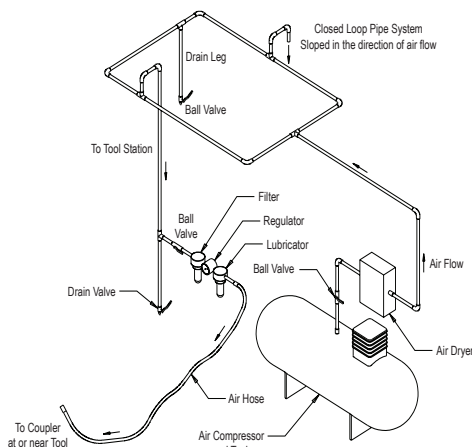


Figure 1

## 3M™ Disc Pads

3M Disc Pads are perfectly mated for use on the 3M Sander. Constructed from premium, industrial-quality materials and featuring a riveted fiberglass and steel hub with molded urethane, their durability and precise construction are the ideal complement to the performance of the 3M Sander. See Product Configuration/Specifications table for the correct replacement pad for a particular model. The following chart is a sample of products offered.

Description	Part number
3M™ Stikit™ Low Profile Disc Pad 5 in., non-vacuum	20351
3M™ Hookit™ Low Profile Disc Pad 5 in., non-vacuum	20352
3M™ Hookit™ Clean Sanding Low Profile Disc Pad 5 in., vacuum	20353
3M™ Stikit™ Low Profile Disc Pad 6 in., non-vacuum	20354
3M™ Hookit™ Low Profile Disc Pad 6 in., non-vacuum	20355
3M™ Hookit™ Clean Sanding Low Profile Disc Pad 6 in., vacuum	20356
3M™ Stikit™ Low Profile D/F Disc Pad 5 in., vacuum	20442
3M™ Stikit™ Low Profile D/F Disc Pad 6 in., vacuum	20454
3M™ Hookit™ Clean Sanding Low Profile Disc Pad-861 6 in., vacuum	20465

See 3M ASD Accessory catalog 61-5002-8098-9 for additional Accessories.

## Removing and Mounting Disc Pad to Random Orbital Sander

1. Disconnect air line from sander.
2. Remove old disc pad from sander by inserting the wrench, supplied with the tool, between the rubber shroud and the disc pad. Use the wrench to secure the sander spindle while turning the disc pad counter clockwise.
3. After the old disc pad has been removed from the sander, inspect the threaded hole in the spindle to ensure that the threads are free of debris and undamaged.
4. Ensure that the phenolic washer is in place around the threaded shaft of the new disc pad.
5. Secure the sander spindle with the wrench and tighten the new disc pad securely to the tool.

## ⚠ WARNING

An inadequately tightened disc pad could cause the threaded spindle to break causing damage to the tool and work piece and possible injury to the operator or bystanders.

**Product Use:** All statements, technical information and recommendations contained in this document are based up on tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the 3M product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

**Warranty and Limited Remedy:** 3M warrants this tool against defects in workmanship and materials under normal operating conditions for one (1) year from the date of purchase. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M tool is fit for a particular purpose and suitable for user's application. User must operate the tool in accordance with all applicable

operating instructions, safety precautions, and other procedures stated in the operating manual to be entitled to warranty coverage. 3M shall have no obligation to repair or replace any tool or part that fails due to normal wear, inadequate or improper maintenance, inadequate cleaning, nonlubrication, improper operating environment, improper utilities, operator error or misuse, alteration or modification, mishandling lack of reasonable care, or due to any accidental cause. If a tool or any part thereof is defective within this warranty period, your exclusive remedy and 3M's sole obligation will be, at 3M's option, to repair or replace the tool or refund the purchase price.

**Limitation of Liability:** Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

**Submitting a Warranty Claim:** Contact your dealer when submitting a warranty claim in accordance with the restrictions listed above. Please note that all warranty claims are subject to manufacturer's approval. Be sure to keep your sales receipt in a safe place. This must be submitted when filing a warranty claim, within 1 year from the date of purchase. For additional assistance call 1-800-362-3550.

## EC Declaration of Conformity



**Manufacturers Name:** 3M, Abrasive Systems Division  
**Manufacturers Address:** 3M Center, Building 223-6N-02  
St Paul, MN USA 55144

Does hereby declare that the machinery described below complies with those applicable essential health and safety requirements of the Machinery Directive 2006/42/EC; together with all amendments to date.

**Description:** 3M™ Random Orbital Sanders, 127mm (5") x 2.5mm (3/32") orbit diameter  
3M™ Random Orbital Sanders, 127mm (5") x 5mm (3/16") orbit diameter  
3M™ Random Orbital Sanders, 127mm (5") x 8mm (5/16") orbit diameter  
3M™ Random Orbital Sanders, 150mm (6") x 2.5mm (3/32") orbit diameter  
3M™ Random Orbital Sanders, 150mm (6") x 5mm (3/16") orbit diameter  
3M™ Random Orbital Sanders, 150mm (6") x 8mm (5/16") orbit diameter

**Model Numbers:** 20208, 20213, 20253, 20254, 20255, 20317, 20318, 20319, 20320, 20321, 20322, 20324, 20325, 20326, 20327, 20328, 20329, 20330, 20455, 20456, 20457, 20458, 20459, 20460, 20461, 20462, 20463, 20464, 63372, 63373, 63378, 63379

The following standards have either been referred to, or complied with, in full or in part as relevant:

EN ISO 12100-1:2003 A1:2009	Safety of machinery. Basic concepts, general principles for design – Basic terminology and Technical principals
EN ISO 12100-2:2003 A1:2009	Hand-held non-electric power tools – Safety Requirements – Part 8: Sanders and Polishers
EN 983:1996 A1:2008	Safety of machinery. Safety requirements for fluid power systems and components - Pneumatics
EN ISO 14121-1:2007	Safety of machinery. Risk assessment principles
EN ISO 28662-1:1992	Hand-held portable power tools – Measurement of vibrations at the handle – Part 1: General
EN ISO 8662-8:1997	Hand-held portable power tools – Measurement of vibrations at the handle – Part 8: Polishers and rotary, orbital and random orbital sanders
EN ISO 15744:2008	Hand-held non-electric power tools. Noise measurement code. Engineering method (grade 2)

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